

STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

Commonwealth Edison Company)	
)	
Petition for the Establishment of Performance)	Docket No. 22-0067
Metrics Under Section 16-108.18(e) of the)	
Public Utilities Act.)	

DIRECT TESTIMONY
OF
JOHN HOWAT
ON BEHALF OF
COMMUNITY ORGANIZING AND FAMILY ISSUES

COFI Ex. 1.0 (2nd CORR)

April 6, 2022

TABLE OF CONTENTS

Introduction	1
The Affordability Metric as Defined in Statute	5
Assessing the Current State of Affordability of ComEd's Rates in Financially Struggling Communities	12
Assessing ComEd's Proposed Affordability Metric	24
COFI's Proposed Affordability Metric	32
Assessing the Point-Value of an Affordability Metric	42
Summary of Conclusions	46

Introduction

Q. PLEASE STATE YOUR NAME, JOB TITLE, EMPLOYER AND BUSINESS ADDRESS.

A. My name is John Howat. I am a Senior Policy Analyst at the National Consumer Law Center (“NCLC”), 7 Winthrop Square, Boston, Massachusetts 02110. The National Consumer Law Center is a non-profit law and policy advocacy organization using expertise in consumer law and energy policy to advance consumer justice, racial justice, and economic security for low-income families and individuals in the United States.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL BACKGROUND AND EXPERIENCE.

A. Over the past 21 years at NCLC, I have managed a range of regulatory, legislative, and advocacy projects across the country in support of low-income consumers’ access to utility and energy-related services. I have been involved with the design and implementation of energy affordability and efficiency programs, regulatory consumer protections, transportation electrification, rate design, home energy improvement financing, issues related to metering and billing, credit scoring and reporting, energy burden and demographic analysis. In addition, I have presented at national conferences, including for the National Community Action Partnership, National Community Action Foundation, National Association of Regulatory Utility Commissions, and National Association of State Utility Consumer Advocates, National Energy Assistance Directors Association, National Energy and Utility Affordability Coalition, and the National Governors Association.

I am the co-author of Access to Utility Service, a law and policy manual published by NCLC, and the Lawrence Berkeley National Laboratory reports, “Advancing Equity in Utility

1 Regulation,” “The Future of Transportation Electrification: Utility, Industry and Consumer
2 Perspectives, and “Recovery of Utility Fixed Costs: Utility, Consumer, Environmental and
3 Economist Perspectives.” I am the primary author of “Home Energy Costs: The New Threat to
4 Independent Living for the Nation’s Low-Income Elderly,” “Tracking the Home Energy Needs
5 of Low-Income Households through Trend Data on Arrearages and Disconnections,”
6 “Rethinking Prepaid Utility Service: Customers at Risk,” and “Public Service Commission
7 Consumer Protection Rules and Regulations: A Resource Guide.” I have been professionally
8 involved with energy program and policy issues since 1981.

9 Prior to joining the Advocacy Staff at National Consumer Law Center, I consulted with a
10 broad range of public and private entities on issues related to utility industry restructuring.
11 Previously, I worked as Research Director of the Massachusetts Joint Legislative Committee on
12 Energy, Economist with the Electric Power Division of the Massachusetts Department of Public
13 Utilities, and Director of the Association of Massachusetts Local Energy Officials. I have a
14 Master’s Degree from Tufts University’s Graduate Department of Urban and Environmental
15 Policy and a Bachelor of Arts Degree from The Evergreen State College.

16
17 Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE STATE PUBLIC UTILITIES
18 COMMISSIONS, INCLUDING THE ILLINOIS COMMERCE COMMISSION?

19 A. Yes. I have presented testimony before utility regulatory commissions in Alabama, Arizona,
20 California, Idaho, Illinois, Indiana, Louisiana, Maryland, Massachusetts, Missouri, New Mexico,
21 Nevada, North Carolina, Pennsylvania, Rhode Island, South Carolina, Texas, Vermont, Virginia,

1 Washington State, and Wisconsin. A list of my Testimony and Comments filed before utility
2 regulatory commissions over the past 21 years is attached as COFI Exhibit 1.1.

3 Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

4 A. I am testifying on behalf of Community Organizing and Family Issues (“COFI”).

5 Q. WHAT ARE THE PURPOSES OF YOUR TESTIMONY?

6 A. My testimony responds to Commonwealth Edison Company’s (“ComEd” or “the Company”)
7 proposed Affordability performance-based ratemaking (“PBR”) metric, described in the Direct
8 Testimony of Ms. Nichole Owens. I will first assess whether ComEd’s proposed affordability
9 metric, one of eight metrics proposed by ComEd, provides a basis for achieving the goals
10 described in Section 16-108.18(c) and 16-108.18(e)(A)(iv) of the Public Utilities Act (“the
11 Act”). In doing so, I first examine whether the Company’s proposed metric incorporates the very
12 specific criteria and factors the statutory language references for purposes of establishing an
13 Affordability metric.

14 Second, I assess the current state of affordability of ComEd rates, as well as how its
15 credit and collection policies impact disconnection rates and other affordability factors within the
16 ComEd service territory.

17 Third, I propose a new Affordability metric for Commission adoption that better
18 encapsulates the goals listed in Section 16-108.18(c) and 16-108.18(e)(A)(iv) than ComEd’s
19 proposal, and specifically addresses the statutorily directed “emphasis on keeping the bills of
20 lower-income households, households in equity investment eligible communities, and household
21 (sic) in environmental justice communities within a manageable portion of their income and

1 adopting credit and collection policies that reduce disconnection for these households
2 specifically and for customers overall to ensure equitable disconnections, late fees, or arrearages
3 as a result of utility credit and collection practices, which may include consideration of impact by
4 zip code.”¹ I also incorporate other criteria, such as those recommended in the Illinois Commerce
5 Commission Staff report on the performance based ratemaking workshop process to develop a
6 different metric that I believe better achieve the goals outlined in the aforementioned statute. In
7 addition, I assess whether ComEd’s proposal to assign only five points out of a total of 60
8 proposed points to the Affordability metric is reasonable in terms of actually incentivizing
9 Company behavior to achieve affordability goals.

10 Q. PLEASE SUMMARIZE YOUR CONCLUSIONS.

11 A. The General Assembly has made clear in several provisions in the Clean Energy Jobs Act
12 (“CEJA”) that affordability for low-income customers and a reduction in disconnections through
13 revisions in credit and collections policies is a critical component to establishing equitable utility
14 service that truly benefits all customers. ComEd’s proposed affordability metric that tracks the
15 reduction in the percentage of customers with arrearages over 90 days over a four-year period
16 fails to achieve these clear goals outlined in the Act. In assessing the current affordability of
17 ComEd’s rates and its current credit and collections practices, I conclude that certain policies,
18 including its customer credit-risk-ranking policy and the Company’s acceleration of
19 disconnections for customers deemed high-risk as compared to low-risk customers, lead to clear
20 inequities in the rates of disconnections. I also conclude that the ComEd disconnection data from

¹ 220 ILCS 5/16-108.18(e)(A)(iv).

2013-2019 show a striking overlap between race and service disconnections. I propose a new Affordability metric for Commission adoption that better encapsulates the goals listed in Section 16-108.18(c) and 16-108.18(e)(A)(iv) than ComEd’s proposal, and specifically addresses the statutory direction to reduce disconnections for low-income households and to ensure equity in credit and collection practices. I recommend that the Commission direct the Company to develop and adopt an Affordability performance metric based on a 10% annual reduction over a four-year period in residential disconnections for non-payment in the 20 zip codes in its service territory with the highest 2017 - 2019 disconnections ratios. Finally, I conclude that ComEd’s proposal to assign only five points out of a total of 60 proposed points to the Affordability metric is insufficient to incentivize affordability goals and recommend that the point value be doubled to 10 points.

The Affordability Metric as Defined in Statute

Q. WHAT GUIDANCE DO THE CEJA AMENDMENTS TO THE ILLINOIS PUBLIC UTILITIES ACT (“THE ACT”) PROVIDE FOR AN ELECTRIC UTILITY CHOOSING TO FILE A PBR PLAN AND PROPOSING AN AFFORDABILITY PERFORMANCE METRIC?

A. Under Section 16-108.18(d) of the Act, both ComEd and Ameren Illinois Company “may file a petition proposing tariffs implementing a four-year Multi-Year Rate Plan as provided in this Section no later than, January 20, 2023, for delivery service rates to be effective for the billing periods January 1, 2024 through December 31, 2027.” Should ComEd choose to file a

multi-rate-year plan, the Commission shall issue an order approving or approving as modified the utility's plan no later than December 20, 2023.²

The General Assembly requires the utility choosing a PBR framework to specifically focus on the financial burdens financially struggling customers face. Section 16-108.18(c) provides that the PBR framework should be designed, among other objectives, to:

- ... (5) maintain the affordability of electric delivery services for all customers, including low-income customers;
- ... (8) address the particular burdens faced by consumers in environmental justice and equity investment eligible communities, including shareholder, consumer, and publicly funded bill payment assistance and credit and collection policies, and ensure equitable disconnections, late fees, or arrearages as a result of utility credit and collection practices, which may include consideration of impact by zip code.³

In addition, Section 16-108.18(e)(2)(A) provides six areas for which up to 8 metrics can be proposed. One of the areas to be addressed through the PBR process is Affordability, described as follows:

- (iv) Achieve affordable customer delivery service costs, with particular emphasis on keeping the bills of lower-income households, households in equity investment eligible communities, and household in environmental justice communities within a manageable portion of their income and adopting credit and collection policies that reduce disconnections for these households specifically and for customers overall to ensure equitable

² These same electric utilities (that serve more than 500,000 retail customers in the State) shall file with the Commission either a general rate case under Section 9-201 of this Act, or a Multi-Year Rate Plan no later than January 20, 2023. 220 ILCS 5/16-108.18(d)(9). An electric utility that initially elected to file a Multi-Year Rate Plan and thereafter that elects to transition to a general rate case may do so upon completion of the 4-year Multi-Year Rate Plan by filing a general rate case at the same time that the utility would have filed its subsequent Multi-Year Rate Plan, as specified in paragraph (8) of subsection 16-108.18 (d). An electric utility that initially elected to a file general rate case and thereafter that elects to transition to a Multi-Year Rate Plan may do so only at the 4-year filing intervals identified by paragraph (8) of subsection 16-108.18(d).

³ 220 ILCS 5/16-108.18(c)(5) and (8).

1 disconnections, late fees, or arrearages as a result of utility credit and
2 collection practices, which may include consideration of impact by zip
3 code.
4

5 Importantly, this category quite literally requires the utility to develop a metric that places
6 “particular emphasis on lower-income households...to achieve affordable delivery service
7 “within a manageable portion of their income...” and “reduce disconnections for these
8 households specifically and for customers overall to ensure equitable disconnections” and invites
9 the utility to incorporate zip- code-level credit and collections data in formulating that goal and
10 metric.

11 Q. HOW DOES THE ACT DEFINE “LOWER INCOME HOUSEHOLDS”,
12 “ENVIRONMENTAL JUSTICE COMMUNITIES” AND “EQUITY INVESTMENT
13 COMMUNITIES”, AS REFERENCED IN THE AFFORDABILITY METRIC STATUTORY
14 PROVISION (16-108.18(A)(iv)) HIGHLIGHTED ABOVE?

15 A. Section 16-108.18(b) of the Act defines these terms as follows:

- 16 • While there is no specific definition for “*lower-income*” households in the Act, there is a
17 definition for “economically disadvantaged communities,” which is defined as areas of
18 one or more census tracts where average household income does not exceed 80% of area
19 median income (AMI). This definition squares with the definition of “low-income”
20 customers provided in Section 8-103(B) of the Act, which describes electric utilities
21 obligations to provide ratepayer-funded, low-income energy efficiency programs, and
22 defines low-income households as at or below 80% AMI.⁴ Finally, new Sections 8-201.7
23 and 8-201.8 of the Act, which prohibit utilities from requiring deposits and late fees for
24 low-income households, employs the same definition: at or below 80% AMI.⁵
25

⁴ 220 ILCS 5/8-103B(c).

⁵ 220 ILCS 5/8-201.7, 8-201.8.

- 1 ● “Environmental justice communities” means the definition of that term as used and as
2 may be updated in the long-term renewable resources procurement plan by the Illinois
3 Power Agency and its Program Administrator in the Illinois Solar for All Program.⁶
4
- 5 ● “Equity investment eligible community” means the geographic areas throughout Illinois
6 which would most benefit from equitable investments by the State designed to combat
7 discrimination. Specifically, the equity investment eligible communities shall be defined
8 as the following areas:
 - 9 (1) R3 Areas as established pursuant to Section 10-40 of the Cannabis Regulation
10 and Tax Act,⁷ where residents have historically been excluded from economic
11 opportunities, including opportunities in the energy sector; and
12
 - 13 (2) Environmental justice communities, as defined by the Illinois Power Agency
14 pursuant to the Illinois Power Agency Act⁸, where residents have historically been
15 subject to disproportionate burdens of pollution, including pollution from the
16 energy sector.
17

⁶ The Illinois Power Agency and Elevate Energy (Elevate) , implementer of Illinois’ Solar for All program, have identified environmental justice communities in Illinois based on a methodological framework established in the Long-Term Renewable Resources Procurement Plan. These communities were designated as such through a calculation utilizing the U.S. EPA tool EJ Screen and a demonstrated higher risk of exposure to pollution based on environmental and socioeconomic factors. Specific questions can be directed to info@Illinoisfa.com.

In addition to communities which were identified as environmental justice communities using the framework in the Long-Term Renewable Resources Procurement Plan, groups or individuals may also submit a proposal to request that their community be designated as an environmental justice community. *See* <https://www.illinoisfa.com/environmental-justice-communities/>

⁷ Under Section 10-40 of the Cannabis Regulation and Tax Act, within 180 days after the effective date of that Act, “the Illinois Criminal Justice Information Authority shall identify as eligible, areas in this State by way of historically recognized geographic boundaries, to be designated by the Restore, Reinvest, and Renew Program Board as R3 Areas and therefore eligible to apply for R3 funding. Local groups within R3 Areas will be eligible to apply for State funding through the Restore, Reinvest, and Renew Program Board. Qualifications for designation as an R3 Area are as follows:

(1) Based on an analysis of data, communities in this State that are high need, underserved, disproportionately impacted by historical economic disinvestment, and ravaged by violence as indicated by the highest rates of gun injury, unemployment, child poverty rates, and commitments to and returns from the Illinois Department of Corrections.

(2) The Authority shall send to the Legislative Audit Commission and make publicly available its analysis and identification of eligible R3 Areas and shall recalculate the eligibility data every 4 years. On an annual basis, the Authority shall analyze data and indicate if data covering any R3 Area or portion of an Area has, for 4 consecutive years, substantially deviated from the average of statewide data on which the original calculation was made to determine the Areas, including disinvestment, violence, gun injury, unemployment, child poverty rates, or commitments to or returns from the Illinois Department of Corrections.” 415 ILCS 705/10-40(c).

⁸ *See* footnote 5.

1 Q. HOW WILL THE METRICS OPERATE WITHIN THE CONTEXT OF A MULTI-
2 YEAR PBR PLAN?

3 A. While I am not an attorney, a plain reading of the new CEJA PBR provisions specifically
4 requires the Commission “to approve metrics designed to achieve incremental improvements
5 over baseline performance values and targets, over a performance period of up to 10 years, and
6 no less than 4 years”⁹ for a utility choosing to file a multi-year PBR plan. The statute also
7 provides that the total for all metrics shall be equal to 40 basis points, although the Commission
8 “may adjust the basis points upward or downward by up to 20 basis points for any given Multi-
9 Year Rate Plan, as appropriate.”¹⁰

10 In addition, the statute provides that the Commission “shall approve performance metrics
11 that are reasonably within control of the utility to achieve,” and that the metrics “should measure
12 outcomes and actual, rather than projected, results where possible.”¹¹ The statute further provides
13 that “(p)erformance metrics shall include one year of tracking data collected in a consistent
14 manner, verifiable by an independent evaluator in order to establish a baseline and measure
15 outcomes and actual results against projections where possible.”¹²

16 Q. ARE THERE OTHER PROVISIONS IN THE PUBLIC UTILITIES ACT THAT YOU
17 HAVE INCORPORATED INTO YOUR ANALYSIS?

⁹ 220 ILCS 5/16-108.18(e)(2).

¹⁰ 220 ILCS 5/16-108.18(e)(2)(B).

¹¹ 220 ILCS 5/16-108.18(e)(2)(D).

¹² 220 ILCS 5/16-108.18(e)(2)(E).

1 A. Yes. I am advised by counsel that the Illinois General Assembly has recognized in the
2 Energy Assistance Act (EAA) that society benefits from affordable utilities with minimal
3 disconnections and arrearages, stating that “the health, welfare, and prosperity of the people of
4 the State of Illinois require that all citizens receive essential levels of heat and electric service
5 regardless of economic circumstance.” 305 ILCS 20/2(a)(1). The EAA also provides that
6 “society benefits if essential utility services are affordable and arrearages and disconnections are
7 minimized for those most in need.” *Id.* at (a)(5).

8 Q. WHAT CRITERIA DID COMED STATE IT APPLIED IN PROPOSING ITS
9 PERFORMANCE METRICS?

10 A. ComEd states that its proposed affordability performance metric focuses on reducing
11 disconnections, late fees, and arrearages because if it “is successful in reducing arrearages and
12 charge offs, and increasing customer assistance, costs for all customers will decrease, because
13 costs associated with unpaid electricity bills are written-off and socialized across all
14 customers.”¹³ Although ComEd states that “it considered the development of a performance
15 metric targeted to keep the electricity bills of lower-income customers and customers in equity-
16 investment eligible and environmental justice communities ‘within a manageable portion of their
17 income,’ as described in Section 16-108.18,” it chose not to propose a metric tied to its
18 customers’ household income because it does not have or retain data concerning all of its
19 customers’ household income, and, “in light of electrification goals outlined in the Clean Energy
20 Law (CEJA), and increased focus on electrification generally, customers’ electricity bills may

¹³ ComEd Ex. 3.0 (CORR) at 6.

1 increase while other energy-related bills decrease.”¹⁴ ComEd does not specifically explain how
2 reducing the percentage of customers with arrearages over 90 days will, its proposed
3 Affordability metric, in fact, reduce disconnections for the customer groups highlighted in the
4 statute.

5 Q. WHAT FRAMEWORK ARE YOU APPLYING TO YOUR ANALYSIS OF THE
6 COMED AFFORDABILITY PERFORMANCE METRIC?

7 A. My analysis focuses on several measures of determining whether the proposed metric will
8 achieve the Affordability goals as articulated by the General Assembly, which are:

- 9 1. Adherence to the language of the statute (220 ILCS 5/16-108.18)
10 The statute has specific language about the goals and purposes of the Performance
11 Incentive Mechanisms (“PIMs”)¹⁵. Each proposal should be measured against the
12 statutory language.
13
- 14 2. Outcome-oriented, not process or spending-oriented
15 Metrics should measure the *effect* on consumers and on rates. Metrics that are defined
16 by a particular investment (e.g. certain types of plant or equipment) are not
17 performance-based but spending-based and should be rejected. Likewise, PIMs that
18 focus on and measure the process, rather than the outcome, miss the point of the
19 metric itself.
20
- 21 3. Responsive to workshop concerns and goals / community input
22 Although it is my understanding that the workshop process was extremely limited
23 time-wise due to a statutory deadline, workshop recommendations, along with the
24 recommendations of Staff, outlined in pages 31-34 of Staff’s report on the workshop
25 process, should be considered throughout these proceedings.¹⁶
26
27

¹⁴ Id. at 7.

¹⁵ Under Section 16-108.18(b), e.g., “Performance incentive mechanism” means an instrument by which utility performance is incentivized, which could include a monetary performance incentive. “Performance metric” means a manner of measurement for a particular utility activity. 220 ILCS 5/16-108.18(b).

¹⁶ Staff Report available at <https://www.icc.illinois.gov/informal-processes/Electric-Utility-Performance-and-Tracking-Metrics>

1 4. Cost/benefit

2 The PIMs should result in a net benefit to consumers and the society, in the context of
3 each metric, the overall statutory goals, and electric service. CEJA explicitly states
4 that performance metrics “must always take into account the affordability of customer
5 rates and bills for all customers, including low-income customers.” 220 ILCS 5/16-
6 108.18(a)(7).
7

8 5. Status quo v. improvement or stretch goal

9 Consistent with the statutory language¹⁷ that requires improvements over baselines,
10 PIMs should only apply if they significantly improve utility performance rather than
11 maintain the status quo. Insignificant or minor improvements in outcomes, or
12 outcomes incentivized elsewhere (no double-dipping of incentives), should not result
13 in an incentive payment. The proposed metrics should require utilities to achieve
14 actual objectives, rather than maintaining the status quo.
15

16 Importantly, the Staff report emphasizes that “Performance metrics should incentivize
17 utilities to achieve goals that are not otherwise incented elsewhere... [and not reward
18 utilities] for achieving what is already required and expected from Illinois public
19 utilities, but award[] utilities for achieving outcomes beyond the expected.” Staff
20 Report at 32.
21

22 6. Transparency and Clarity

23 PIMs and reporting metrics should increase transparency and the availability and
24 reporting of utility and energy operating and cost information. Further, metrics and
25 outcomes should be available to the public in an understandable format, clearly
26 defined, measurable, and unambiguous. Staff Report at 31.
27

28 **Assessing the Current State of Affordability of ComEd’s Rates in Financially Struggling**
29 **Communities**

30
31 Q. HOW DID YOU BEGIN YOUR ASSESSMENT OF THE AFFORDABILITY OF
32 COMED’S RATES FOR PURPOSES OF PROPOSING AN AFFORDABILITY METRIC?

¹⁷ 220 ILCS 5/16-108.18(e)(2).

1 A. In order to understand the current status of the affordability of ComEd's rates, I reviewed
2 zip code level credit and collections data provided by the Company in this proceeding and
3 publicly filed with the commission, consistent with the language in Section 16-108.18(e)(A)(iv)
4 of the Act that specifically references utilities developing an Affordability metric "which may
5 include consideration of impact by zip code." I cannot overstate the importance of utilizing zip
6 code-level data to assess the affordability of utility rates and better understand both where energy
7 burdens are highest within a utility's service territory and whether a utility's existing rates and
8 credit and collections practices disproportionately impact certain communities.

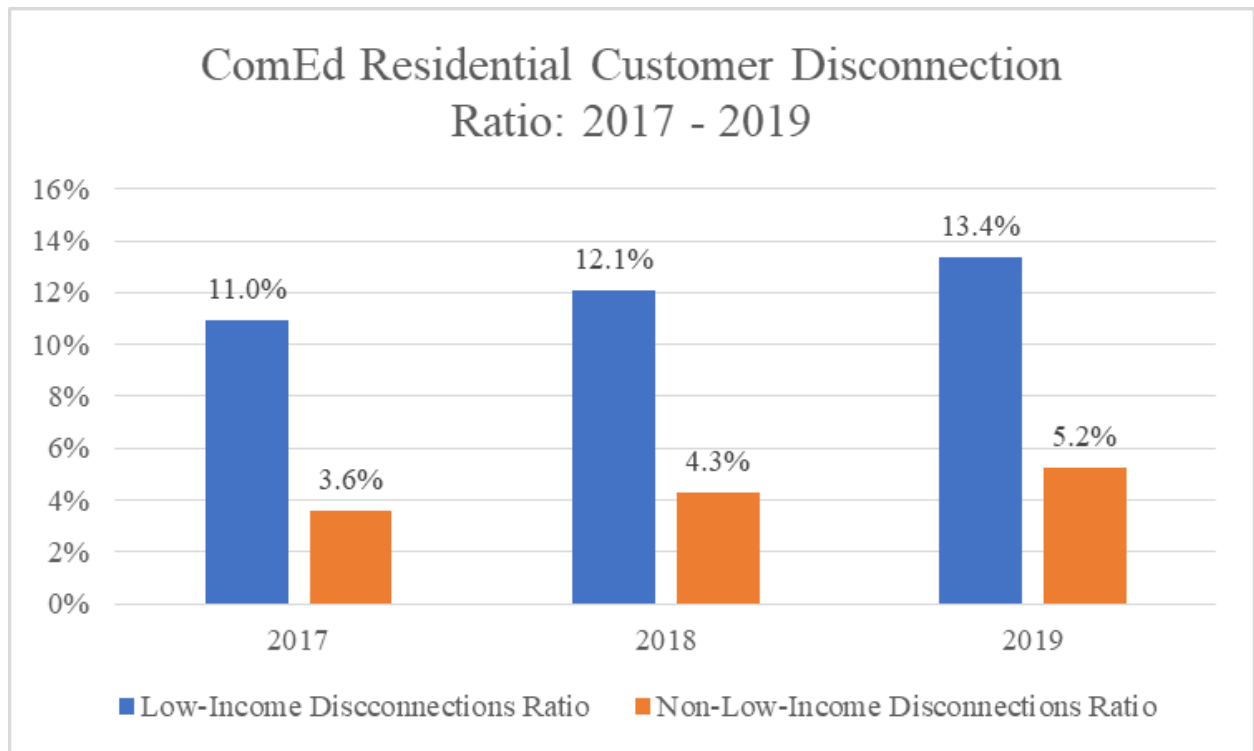
9 The analysis entailed estimating comparative "disconnection rates" by summing identified
10 low-income and non-low-income residential customer disconnections for non-payment over the
11 three-year period directly preceding the COVID-19 pandemic (2017 - 2019),¹⁸ and dividing those
12 sums by the total number of low-income and non-low-income residential customers as identified
13 by the Company in its Compliance Filing in ICC Docket No. 2C0-0309.¹⁹

14 Q. WHAT CONCLUSIONS CAN YOU DRAW FROM YOUR ANALYSIS?

15 A. Based on the calculations as described directly above, I found that in each year between
16 2017 and 2019 ComEd's identified low-income residential customers lost access to critical home
17 energy service at a rate 2.6 to 3.1 times higher than that of customers identified as non-low-
18 income. These results are illustrated in the chart below.

¹⁸ ComEd response to COFI 2.04, Att. 1.

¹⁹ ICC Docket No. 20-0309, ICC Summary Report Prepared by ComEd, August 10, 2020, p. 1.



1 The elevated rates of low-income customer disconnections as illustrated above provide an
2 indication of affordability challenges faced by low-income customers and support the
3 development and implementation of an Affordability metric that is directly linked to reducing
4 the level of disconnections in low-income communities.

5 Q. ARE THERE RACIAL JUSTICE RAMIFICATIONS OF UNAFFORDABLE
6 ELECTRIC BILLS AND ELEVATED DISCONNECTION RATES THAT YOU DESCRIBE
7 ABOVE?

1 A. Yes. In addition to the aggregate disconnect data described above, I examined zip code
2 level disconnections data provided by ComEd. This examination entailed matching zip code-
3 level American Community Survey race and population data with the zip code-level
4 disconnections data provided by the Company. I then calculated total disconnections by zip code
5 over the period from 2013 – 2019 and created a ratio of total disconnections to total residential
6 accounts for each of the zip codes served by ComEd. Finally, I sorted and ranked zip codes by
7 percent of the population consisting of people of color non-white population.

8 The data show a striking overlap between race and service disconnections. The table provided
9 below shows that among the 20 zip codes with the highest disconnections ratio, 13 were among
10 the top 20 zip codes with the highest non-white populations. The top 20 disconnection ratios and
11 the top 20 non-white population cells are shaded in the table to more clearly illustrate the
12 relationship between race and service disconnections.

Zip Code	Total Residential Customers	Total Residential Disconnections 2013 - 2019	Disconnection Ratio (Total Disconnections / # Residential Customers)	Percent Non-White	CityAliasName
60958	49	77	1.57	80.7%	PEMBROKE TWP
60621	12763	12757	1.00	97.8%	ENGLEWOOD
60636	11982	11535	0.96	94.4%	OGDEN PARK
60827	8974	8088	0.90	93.2%	RIVERDALE
60426	12589	11087	0.88	79.1%	PHOENIX
60472	1655	1450	0.88	89.6%	ROBBINS
60624	14820	12316	0.83	95.5%	CHICAGO
60419	8492	6790	0.80	95.5%	DOLTON
60644	17856	14191	0.79	93.8%	CHICAGO
61057	52	41	0.79	14.4%	NACHUSA
60628	25801	20104	0.78	95.3%	ROSELAND
60428	430	330	0.77	85.2%	MARKHAM
60649	25156	18312	0.73	96.2%	CHICAGO
60637	23456	16362	0.70	83.3%	JACKSON PARK
60623	28485	19040	0.67	62.0%	CHICAGO
60620	29944	19876	0.66	97.9%	CHICAGO
60619	31264	20743	0.66	98.2%	GRAND CROSSING
60409	15305	9926	0.65	77.2%	CALUMET CITY
60466	11784	7271	0.62	72.7%	UNIVERSITY PK
60411	20585	12634	0.61	70.6%	S CHICAGO HEI
60651	22140	13547	0.61	79.7%	CHICAGO
60429	5647	3455	0.61	85.4%	HAZEL CREST
60153	8245	5023	0.61	81.8%	MAYWOOD
61104	8190	4904	0.60	39.8%	ROCKFORD
60471	5312	3075	0.58	90.9%	RICHTON PARK
60653	16223	9308	0.57	94.0%	CHICAGO
60617	31329	17814	0.57	63.1%	CHICAGO
61101	8651	4864	0.56	44.0%	ROCKFORD
60406	9634	5178	0.54	50.8%	DIXMOOR
60478	5984	3202	0.54	92.7%	TINLEY PARK

1 These findings and their unequivocal racial equity ramifications place added emphasis on the
2 need for a targeted Affordability metric that supports the reversal of disparities in utility credit
3 and collections systems and outcomes. Reversing the inequities that permeate the existing home
4 energy security landscape requires purposive corrective action. I therefore conclude that the
5 Company should be directed by the Commission in this proceeding to develop and implement a
6 disconnections-based performance incentive metric entailing reduction in disconnections as
7 described further below. It should be further noted that in the table above, 16 of the 20 zip codes
8 cited fall within Environmental Justice Communities and all 20 fall within the R3 definition of
9 Equity Investment Communities.

10 Q. HOW, IF AT ALL, DO THESE FINDINGS SUPPORT YOUR PROPOSED
11 AFFORDABILITY METRIC?

12 A. The findings regarding residential customer service disconnections, particularly among
13 low-income customers, point to the need for ComEd to specifically revisit its credit and
14 collections practices and target efforts to minimize these disconnections in the zip codes with the
15 highest disconnection rates.

16 Q. DID THE COMPANY CONSIDER EXAMINING ZIP-CODE-LEVEL CREDIT AND
17 COLLECTIONS DATA, ENVIRONMENTAL JUSTICE COMMUNITY AND EQUITY
18 INVESTMENT ELIGIBLE COMMUNITY DATA IN DEVELOPING ITS METRIC?

19 A. No, it did not. In response to AG Data Request 1.08(c), the Company stated it only utilizes
20 zip codes “to determine outreach strategies in different communities, but the overall goal is to
21 increase affordability for all customers.”

1 Q. DO YOU AGREE WITH THAT APPROACH?

2 A. No. As discussed further below, I am troubled by the fact that the Company seems to have
3 rejected the need, as referenced in the statute, to specifically focus its Affordability metric
4 proposal on lower-income communities and places where zip code level data reveals high rates
5 of disconnection and, hence, unaffordability.

6 Q. IN ASSESSING THE COMPANY'S AFFORDABILITY METRIC THROUGH
7 DISCOVERY RESPONSES AND DISCONNECTION DATA, DID YOU COME ACROSS
8 OTHER FACTORS THAT IN YOUR VIEW IMPACT WHETHER LOWER INCOME
9 CUSTOMERS REMAIN CONNECTED TO ESSENTIAL UTILITY SERVICE?

10 A. Yes, I did. In responses to COFI Data Request 2.07, ComEd describes its use of a process
11 of risk-ranking of its residential customers for purposes of establishing the timing of certain
12 collection activities, including disconnections, for customers with a certain level of arrearages.
13 These responses indicate that ComEd relies on the services of a third-party vendor, TSI Inc.,
14 that utilizes an algorithm to create a risk-ranking for every one of its residential customers on a
15 monthly basis. The Company states:

16 First, all customers are automatically scored for their likelihood of
17 payment. ComEd's vendor, Total Solution Inc. ("TSI"), uses its
18 proprietary risk scoring software to score each ComEd's residential
19 customer account two (2) days after their bill due date based on the
20 calculated likelihood of on-time payment ("risk level"). TSI
21 completes this automated scoring every month.

22
23 Second, those customers with past-due balances move through the
24 Collection Matrix; the speed at which they proceed through the
25 Collection Matrix is dependent on their individual risk score. A
26 customer is placed in a risk segment based on their individual

1 risk score. The risk segments range from ‘1’ (most likely to make
2 an on-time payment) to ‘8’ (least likely to make an on-time
3 payment). Those customers in the highest risk segments, who also
4 have past due balances at or exceeding the collection threshold, are
5 moved through the Collection Matrix faster than customers in lower
6 risk segments. Risk scoring does not determine whether a customer
7 will be disconnected, but instead impacts the speed at which
8 ComEd can utilize various steps in the Collection Matrix as
9 permitted by Part 280. ComEd also uses the risk scoring and risk
10 segmentation for bad debt reserve forecasting.

11
12 Third, if the customer has completed the Collection Matrix and still
13 has a past due balance, they are eligible for disconnection. Once
14 customers become eligible for disconnection, those customers with
15 the highest past due balances and those customers with the oldest
16 age of past due balances are at the beginning of the disconnection
17 “queue” and will be in line for disconnection first. The approach
18 behind the disconnection queue is that those customers who owe the
19 highest balances and are in the highest risk segments are generally
20 the least likely to pay. Without the disconnection process, customer
21 arrearages grow, become too high for them to afford to pay, and
22 ultimately become uncollectible. After becoming uncollectible, the
23 costs are socialized amongst ComEd customers.²⁰

24
25
26 Q. DOES COMED EXPLAIN HOW TSI, ITS THIRD-PARTY CONTRACTOR,
27 ASSESSES A CUSTOMER’S SCORING FOR THEIR “LIKELIHOOD OF PAYMENT” AND
28 THE SPEED AT WHICH A CUSTOMER MOVES THROUGH THE DISCONNECTION
29 CYCLE?

30 A. Partially, although it appears that not even the Company may know exactly how TSI
31 establishes an individual customer’s credit score given its “proprietary” status and the fact that
32 no information is provided as to how each factor that enters into TSI’s calculation is weighted or

²⁰ ComEd Response to COFI Data Request 2.07(a).

1 how the calculated scores are segmented into the eight risk rankings that ComEd uses when
2 determining how fast a customer moves through the disconnection process.

3 The Company further explained that the “attributes” that TSI considers in its risk scoring
4 model are:

- 5 1. Collection arrangements within the last 6 months (new customers) or 12
6 & 3 months (existing customers)
- 7 2. Times eligible to cut within the last 6 months (new customers) or 12
8 months (existing customers)
- 9 3. Number of collection activities in the last 6 months (new customers) or
10 12 months (existing customers)
- 11 4. Total arrears in the past 6 months (new customers) or 12 months (existing
12 customers)
- 13 5. Times past due within the last 6 months (new customers) or 12 & 4 months
14 (existing customers)
- 15 6. Months since account turned on
- 16 7. Months since last payment TSI implements a scorecard in order to
17 calculate risk scores for each customer.

18
19 TSI imports ComEd’s Customer Information Management System (“CIMS”)
20 data and calculates risk scores using the attributes and their corresponding
21 weightings in the TSI scorecard. TSI then translates that risk score into a risk
22 segmentation from 1 (most likely to pay) to 8 (least likely to pay). This risk
23 segmentation is TSI’s deliverable to ComEd.²¹
24

25 This response suggests that ComEd’s residential customers proceed through the Company’s
26 disconnect practice on two separate tracks: one for customers whose credit scoring, based on
27 TSI’s less than transparent algorithm, are deemed low risk for non-payment (“most likely to
28 pay”) and a quicker path toward disconnection for those customers whose credit ranking is
29 considered higher-risk (“least likely to pay”).

²¹ ComEd Response to COFI Data Request 2.07(d).

1 I have attached the Company's response to COFI 2.07 and the relevant Attachment as
2 COFI Exhibit 1.2.

3
4 Q. DO YOU HAVE AN OPINION AS TO WHETHER THIS CUSTOMER RISK-
5 RANKING METHODOLOGY IMPACTS THE AFFORDABILITY OF RATES FOR
6 COMED'S FINANCIALLY STRUGGLING CUSTOMERS?

7 A. Yes, I do. First, I observe that one of the factors TSI incorporates into its risk-ranking
8 algorithm is "length of time at the account." This factor can't help but negatively impact renters
9 in terms of their credit risk-ranking, as renters tend to move more frequently than homeowners,
10 and low-income customers are more likely to be renters than homeowners.

11 Second, as detailed in response to COFI DR 2.07, ComEd makes clear that customers with
12 a high risk-ranking move through the disconnection process at a significantly faster rate than
13 customers with lower risk-rankings: 16 days vs. 40 days, and with this timeline triggered via a
14 lower arrearage amount: \$300 for low-risk customers ranked 1 or 2; \$200 for customers ranked 3
15 or 4 and \$100 for customers ranked 5 through 8. Customers with high-risk rankings may receive
16 a disconnection notice after a bill is 6 days past due. Low-risk customers, however, are not eligible
17 for a disconnect notice until the bill is 30 days past due, as shown in the table below:

Residential										
Risk Segment	Collection Threshold	Payment Due (Typically, 21 days after bill issued)	Deposit Review (LPC's assessed)	Disconnect Notice (10-Days before Eligible to Cut)	Winter Contact Letter (1-Day after Disconnect Notice)	Field Notification Call (3-Days before Eligible to Cut)	Board of Education (1-Day from Field Notification Call)	24-Hour Courtesy Call (1-Day before Eligible to Cut)	Eligible for Cut (10 Days from Disconnect Notice)	Expire from Cut List (A) Part 286 allows for 35 days from Eligibility Date
		Day								
1	\$300	1	3	30	31	37	38	39	40	75
2	\$300	1	3	30	31	37	38	39	40	75
3	\$200	1	3	30	31	37	38	39	40	75
4	\$200	1	3	30	31	37	38	39	40	75
5	\$100	1	3	10	11	17	18	19	20	55
6	\$100	1	3	10	11	17	18	19	20	55
7	\$100	1	3	6	7	13	14	15	16	51
8	\$100	1	3	6	7	13	14	15	16	51

(A) Note: 41 Days from Disconnect Notice is programmed in CMS

(A) Note: 41 Days from Disconnect Notice is programmed in CMS

1 While ComEd notes that its new “collection threshold” that would make customers with
2 past due balances greater than two (2) times their average monthly bill eligible for disconnection
3 is not yet incorporated into its risk-ranking timeline,²² that change does not appear to alter the core
4 flaw in the Company’s existing risk-ranking methodology: that persons deemed high-risk are
5 disconnected quicker than their lower-risk counterparts.

Another concern highlighted in these Company discovery responses is that due to the shorter timeline for disconnection action, customers with a low risk ranking (that is, “most likely to make an on-time payment”) are not mailed disconnection notices or, at the very least, receive them less frequently than higher risk customers due at least in part to the accelerated timeline that higher risk customers are moved through the “Collection Matrix.”²³ That means, they are not

²² ComEd Response to COFI Data Request 2.07.

23 *Id.*

1 experiencing one of the credit and collection factors taken into account by TSI – whether a
2 customer has received a disconnection notice — when risk-ranking customers. Likewise, since
3 these acceptable-risk customers are not considered accounts for which the Company needs to
4 initiate collection treatment, they similarly are not being disconnected as often as customers with
5 low risk-rankings.

6 Of course, given this disparate treatment of lower- and higher-risk-ranked customers in
7 terms of the pace and frequency of the application of the collection cycle, and the factors that TSI
8 considers in assessing someone’s credit risk, one can conclude that a customer who is considered
9 a higher-risk-ranked customer will inevitably remain stuck in that category if collection activity is
10 applied on an accelerated basis as compared to other lower-risk-ranked customers and assuming
11 utility bills remain unaffordable. The PBR statute’s direction to focus on “adopting credit and
12 collection policies that reduce disconnections for these (low-income) households specifically and
13 for customers overall to ensure equitable disconnections”²⁴ suggests this two-tiered approach to
14 initiating the disconnection cycle – one for customers whom ComEd has labeled as having “most
15 likely to make an on-time payment” credit and another for those labeled as “least likely to make
16 an on-time payment” – hardly ensures “equitable disconnections.”

17 It is my understanding too, upon consultation with counsel, that LIHEAP vendor payments
18 take, on average, 30 days to process in the State of Illinois. If a customer with a high-risk credit
19 ranking is disconnected in less than 30 days, which ComEd’s credit and collections processes
20 appear to permit, then that customer, too, will not only experience the stress and public health

²⁴ 220 ILCS 5/16-108.18(e)(2)(A)(iv).

1 threat that disconnection from essential electric service brings, but also the incurrence of
2 reconnection fees and a demand for full payment of the arrearage prior to reconnection of utility
3 service.²⁵

4 If a customer isn't permitted the time needed to access the energy assistance that will help
5 address an arrearage and keep the customer connected, then the value of ComEd customer
6 outreach, to the extent it occurs, is diminished and the customer's arrearage only grows.

7 **Assessing ComEd's Proposed Affordability Metric**

8

9 Q. WHAT SPECIFIC AFFORDABILITY METRIC DOES THE COMPANY PROPOSE
10 WITHIN THE CONTEXT OF SECTION 16-108.18(e)(A)(iv)?

11 A. ComEd witness Owens' proposes a performance metric that measures the number of
12 customers with an arrearage over 90 days, divided by the total number of residential customers.²⁶
13 As shown in the table below, ComEd will seek to reduce the percentage of these customers
14 approximately 2% year-over-year, with customers identified in ComEd's Customer Information
15 Management System ("CIMS") as using qualified life-support equipment excluded from the
16 calculation of the performance metric. The 2% annual improvement target is based on historical
17 data (2014-2019), according to the Company. During that five-year span, there was a decrease of

²⁵ 83 Ill.Admin.Code Part 280.170 (Timely Reconnection of Service);
<https://www.ilga.gov/commission/jcar/admincode/083/083002800K01700R.html>

²⁶ ComEd Ex. 3.0 (CORR.) at 7.

1 11.3% in the percentage of customers with an arrearage over 90 days (or an average of 2.3% per
2 year). Using this historical data, an annual improvement of 2% was proposed.

3 Ms. Owens proposes to use 2019 as the most recent year of baseline data, in order to
4 exclude data that reflects the impacts of the COVID-19 pandemic. ComEd also states that “if
5 ComEd’s collections process is paused for a significant amount of time during a calendar year
6 for any reason (other than the annual winter moratorium), the affordability metric would not
7 apply in that year and ComEd would not earn any incentive or suffer any penalty associated with
8 this metric in the year of the pause.”²⁷

Table 1 ²⁸ :					
Baseline	Incremental Annual Target				
	2024	2025	2026	2027	2028
3.71%	3.64%	3.56%	3.49%	3.42%	3.35%

9 Q. WHY DOES COMED BELIEVE A METRIC THAT EXAMINES AND REDUCES
10 ARREARAGES OVER 90 DAYS IS AN APPROPRIATE MEANS TO ASSESS
11 AFFORDABILITY?

12 A. ComEd states that if it “is successful in reducing arrearages and charge offs, and
13 increasing customer assistance, costs for all customers will decrease.”²⁹ Ms. Owens asserts that
14 costs associated with unpaid electricity bills are written-off and socialized across all customers
15 via ComEd’s Rider Uncollectible Factors (Rider UF), and thus, changes in the total value of

²⁷ *Id.*

²⁸ ComEd Ex. 3.0 CORR. at 8.

²⁹ *Id.* at 9.

costs recovered through Rider UF” may be indicative of the benefits associated with this performance metric.”³⁰ ComEd further states, however, that “the total value of costs recovered through Rider UF may be subject to other factors, such as general economic factors, unrelated to ComEd’s performance with respect to this metric.”³¹

Q. HOW WILL COMED COLLECT DATA FOR THE AFFORDABILITY METRIC?

A. The Company states that it will collect data regarding the number of customers with arrearages greater than 90 days using its existing CIMS system.

Q. DOES COMED’S PROPOSED AFFORDABILITY METRIC FOLLOW THE DIRECTIVES OF THE STATUTE IN TERMS OF ACHIEVING THE GOALS OUTLINED IN SECTION 16-108.18(e)(A)(iv)?

A. No, it does not, for several reasons. First, the Company has not established that measuring the reduction of the percentage of customers with arrearages of more than 90 days will specifically target “lower-income households, households in equity investment eligible communities, and households in environmental justice communities” as the statute requires. Second, the metric measures the percentage of customers with a certain vintage of arrearages (90+ days) – not whether it actually “(a)chieve(s) affordable customer delivery service costs, with particular emphasis on keeping the bills of lower-income households, households in equity investment eligible communities, and household in environmental justice communities within a manageable portion of their income and adopting credit and collection policies that reduce

³⁰ *Id.*

³¹ *Id.*

1 disconnections for these households specifically and for customers overall to ensure equitable
2 disconnections, late fees, or arrearages as a result of utility credit and collection practices, which
3 may include consideration of impact by zip code” as the statute requires.

4 In fact, the Company seems to have rejected a specific examination of affordability
5 within lower-income, environmental justice and environmental equity communities, as well as an
6 examination of what in particular will reduce disconnections for these residential customers. For
7 example, in response to discovery requests, ComEd states that it views the Environmental Justice
8 Community designation as “an instructive indicator of a community’s exposure to poor air
9 quality and the risk that those conditions will lead to poor health outcomes for residents,”³² but
10 gives no indication that these are areas that should be studied for purposes of improving
11 affordability. When specifically asked whether it considered using environmental justice
12 community and equity investment eligible community data to identify areas with a significant
13 number of customers in need of assistance, when developing this metric, the Company also
14 stated:

15 No, ComEd did not consider environmental justice community and
16 equity investment eligible communities as distinct components for
17 this metric. The overall goal is to increase affordability for all
18 customers, including the members of those communities.³³
19

20 It appears that ComEd has made no assessment of the affordability of its rates within
21 either Environmental Justice communities or those identified as Equity Investment Eligible

³² ComEd Response to AG 1.16(a).

³³ ComEd Response to AG 1.08(d).

1 communities. The Company states that it has no plans to alter its credit and collection policies
2 for these communities.³⁴ In addition, the Company states that it has “no immediate plans to
3 change credit and collections policies based solely on zip code level data,”³⁵ and its overall goal
4 is to increase affordability for *all* customers, not the customers in certain communities, including
5 those identified via zip code.³⁶

6 ComEd seems to be more focused on reducing its uncollectibles (bad debt) overall in its
7 proposed Affordability metric than improving affordability for customers who have experienced
8 unaffordability through disconnections and have been specifically targeted for attention by the
9 General Assembly. The Company states, for example, when asked whether it considered using
10 customers labeled as low-income through participation in energy assistance programs, such as
11 the Low Income Home Energy Assistance Program (LIHEAP), the Percentage of Income
12 Payment Plan (PIPP) program, and customers whose income is at or below 80% of area median
13 income when developing its Affordability metric, that if it is successful in reducing arrearages
14 and charge offs and increasing customer assistance, it “will mitigate growth in uncollectibles,
15 helping to make energy more affordable for all its customers.”³⁷

16 While reducing overall bad debt for all customers may on its face be an admirable goal, it
17 reveals little about how to prevent disconnections in environmental justice, environmental equity
18 and lower income communities. In fact, a metric focused on the number and percentage of

³⁴ ComEd Response to AG 1.16(e) and AG 1.08(d).

³⁵ ComEd Response to AG 1.16(g).

³⁶ ComEd Response to AG 1.08(c).

³⁷ ComEd Response to AG 1.08(e).

1 customers with arrearages could worsen rates of disconnections if the company attempted to
2 meet its goals by accelerating disconnections of customers with arrearages that are less than 90
3 days old as a way to pressure customers to pay their overdue bills.

4 When asked to outline what specific steps it will take to reduce the number of customers
5 with arrearages over 90 days, it points to existing outreach, adherence to ICC rules and statutory
6 provisions, existing energy efficiency programs, and COVID-19 era bill assistance that has since
7 expired.³⁸ In other words, the Company identifies nothing out of the ordinary, required customer
8 offerings and adherence to credit and collections minimum standards that would trigger
9 increased affordability or provide the basis for incentive (performance-based) payments.

10 Q. DOES COMED POINT TO ANY NEW MEASURE OR POLICY THAT IT BELIEVES
11 MAY IMPACT AFFORDABILITY?

12 ComEd states that it implemented on March 15, 2022 a “dynamic” collection threshold,
13 where customers with past due balances greater than two (2) times their average monthly bill
14 will receive a disconnection notice.”³⁹ ComEd states that it relies on disconnection notices “to
15 bring customers’ attention to their past due bills and spur payment and/or payment arrangements
16 before the arrearage becomes unmanageable.”⁴⁰ While it is true that increased customer outreach
17 and earlier issuance of disconnection notices may trigger more people taking action to obtain
18 energy assistance, assuming these customers qualify for either the Low Income Home Energy
19 Assistance Program (“LIHEAP”) or Illinois’ Percentage of Income Payment Plan (“PIPP”)

³⁸ ComEd Response to AG 1.08(h).

³⁹ *Id.*, ComEd Response to COFI Data Request 2.07.

⁴⁰ *Id.*

1 program, measuring the percentage of customers with arrearages of 90+ days will not provide
2 evidence that fewer disconnections have occurred and that affordability among financially
3 struggling customer populations has actually improved.

4 Q. IS REDUCING THE PERCENTAGE OF CUSTOMERS WITH ARREARAGES OVER
5 90 DAYS EVIDENCE THAT AFFORDABILITY HAS INCREASED?

6 A. No, it is not. First, it runs contrary to the statutory directive that the Commission “shall
7 approve performance metrics that are reasonably within control of the utility to achieve.”⁴¹ As
8 the economic fallout from the COVID-19 pandemic demonstrated, increased arrearages are the
9 byproduct of several factors beyond the Company’s control, like loss of employment. This past
10 winter, too, has shown the world that factors such as energy supply prices and weather are
11 significant factors in the accumulation of customer arrearages. Under ComEd’s metric, for
12 example, a particularly mild summer and low unemployment figures may very well translate into
13 reduced customer arrearages without ComEd taking any action worthy of awarding additional
14 ROE basis points.

15 In addition, we know, as highlighted above, that ComEd disconnects customers it
16 considers a high credit risk as in as few as 16 days after a bill is issued and for amounts as low as
17 \$100. In this regard, reducing the percentage of customers with arrearages of more than 90 days
18 will not improve affordability for those customers who face accelerated disconnections before 90
19 days, which the Company reveals is a reality.

⁴¹ 220 ILCS 5/16-108.5(e)(2)(D).

1 As noted above, a reasonable Affordability metric should measure tangible *results or*
2 *outcomes* that, based on Section 16-108.18 requirements, actually reduce disconnections for
3 lower-income customers. Given the clear language of the statute, the metric should be designed
4 to verifiably “(a)chieve affordable customer delivery service costs, with particular emphasis on
5 keeping the bills of lower-income households, households in equity investment eligible
6 communities, and household in environmental justice communities within a manageable portion
7 of their income and adopting credit and collection policies that reduce disconnections for these
8 households specifically and for customers overall to ensure equitable disconnections, late fees, or
9 arrearages as a result of utility credit and collection practices, which may include consideration
10 of impact by zip code.”⁴² ComEd’s Affordability metric fails to achieve these goals.

11 Finally, ComEd has provided no assurance that achieving its Affordability metric will, in
12 fact, make rates more affordable. It has made no assessment of what costs it might incur as a
13 result of any efforts to increase customer outreach.⁴³ It further admits it has not estimated its
14 annual costs of achieving its performance goals for its Affordability metric.⁴⁴ And of course, any
15 of those estimated costs would need to be added to a five-point ROE increase it might achieve
16 should it achieve the metric. Accordingly, the overall impact on rates and whether
17 disconnections have, in fact, decreased is unknown.

18 Q. PUTTING ASIDE THE METRIC ITSELF, DOES COMED’S PROPOSED 2%
19 ANNUAL REDUCTION IN THE PERCENTAGE OF CUSTOMERS WITH ARREARAGES

⁴² 220 ILCS 5/16-108.18(e)(A)(iv).

⁴³ ComEd Response to AG 1.08(i).

⁴⁴ *Id.*

1 OVER 90 DAYS PROVIDE A SUFFICIENT STRETCH GOAL TO JUSTIFY AN ROE
2 INCENTIVE PAYMENT?

3 A. No, it does not. ComEd's proposed 2% annual reduction in the percentage of customers
4 with arrearages over 90 days would reward the Company for less than exceptional performance.
5 As I noted earlier, the Staff report emphasizes that "Performance metrics should incentivize
6 utilities to achieve goals that are not otherwise incented elsewhere... [and not reward utilities]
7 for achieving what is already required and expected from Illinois public utilities, but award[]
8 utilities for achieving outcomes beyond the expected." Staff Report at 32. ComEd stated in
9 response to COFI Data Request 2.15 that the 2% annual improvement target is based on
10 historical data (2014-2019), and that during that five-year span, there was a decrease of 11.3% in
11 the percent of customers with an arrearage over 90 days, or an average of
12 2.3% per year. Thus ComEd's proposed annual reduction of 2% in the percentage of customers
13 with 90 days in arrearages represents a *decrease* in achievement of the metric rather than a level
14 "beyond the expected." The Commission should not reward ComEd for non-exceptional
15 performance.

16 **COFI's Proposed Affordability Metric**
17

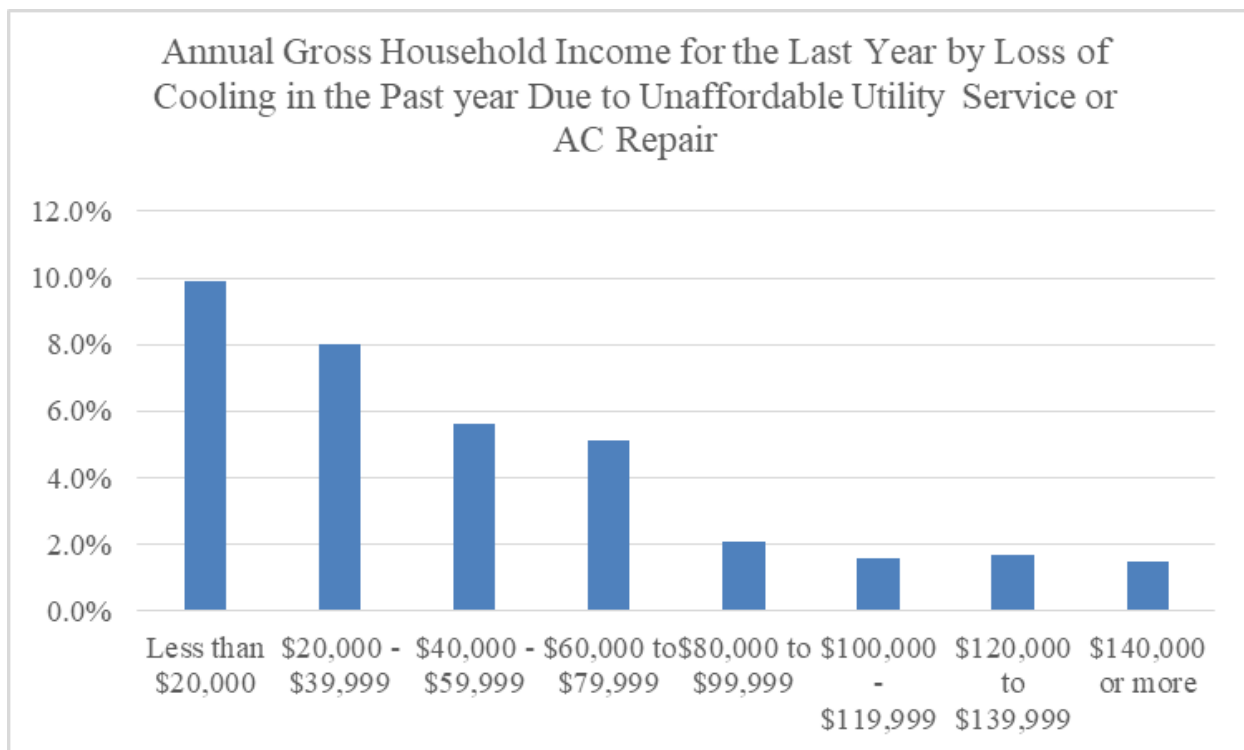
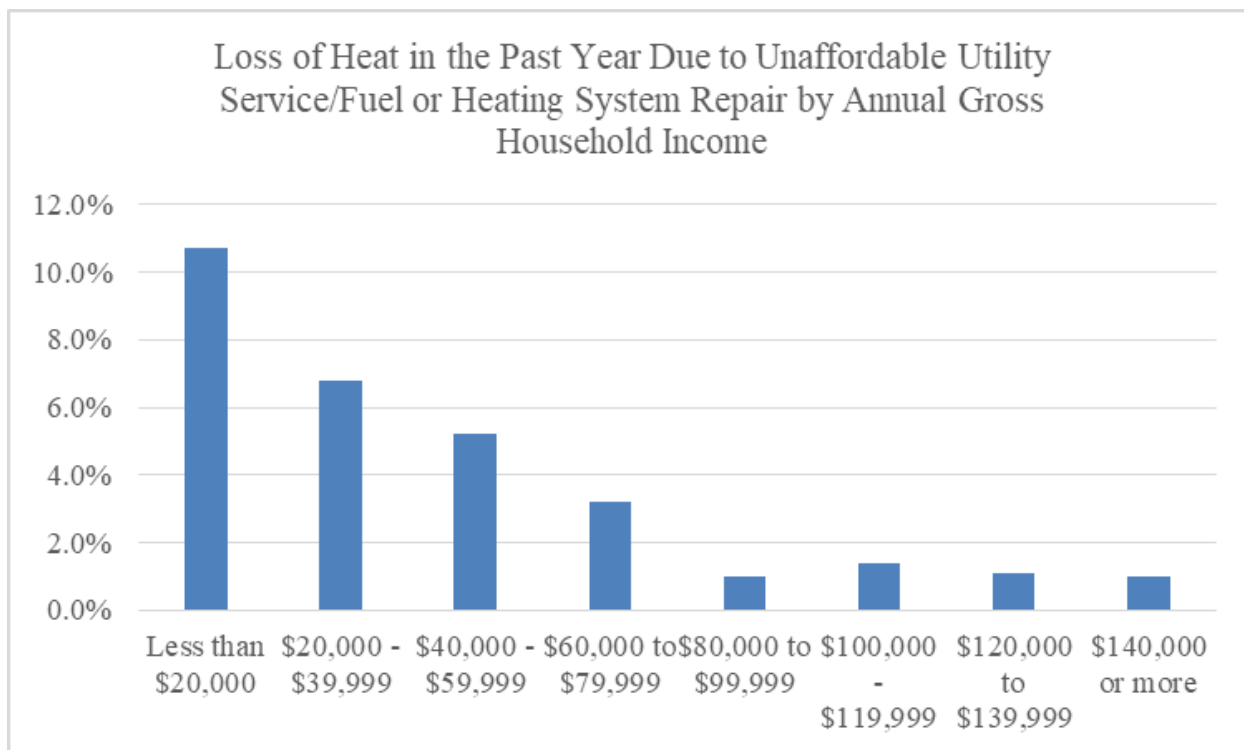
18 Q. BASED ON YOUR REVIEW OF BOTH COMED'S CREDIT AND COLLECTIONS
19 DATA, AND YOUR ASSESSMENT OF COMED'S PROPOSED METRIC, DO YOU HAVE
20 A DIFFERENT PROPOSAL FOR AN AFFORDABILITY METRIC(S) TO BE
21 INCORPORATED WITHIN COMED'S FUTURE PBR RATE FILING?

1 A. Yes, I do. Based on the foregoing, I recommend that the Commission direct the Company
2 to develop and adopt an Affordability performance metric based on a 10% annual reduction over
3 a four-year period in residential disconnections for non-payment in the 20 zip codes in its service
4 territory with the highest 2013 - 2019 disconnections ratios. The baseline disconnections ratio
5 should be calculated by totaling residential disconnections over the three-year period and
6 dividing by the number of residential customers in the zip code.

7 Q. WHY DO YOU BELIEVE YOUR PROPOSED DISCONNECTION REDUCTION
8 METRIC ACHIEVES THE GOALS OUTLINED IN THE PREVIOUSLY DISCUSSED
9 STATUTORY PROVISIONS RELATED TO AFFORDABILITY?

10 A. As illustrated below, loss of essential home energy and utility services has been shown to
11 be concentrated among lower income households.⁴⁵

⁴⁵ U.S Department of Energy/Energy Information Administration 2015 Residential Energy Consumption Survey
Microdata cross-tabulated by National Consumer Law Center.



1 The concepts of household income, affordability, and access are linked. Keeping customers
2 connected to the utility network is a critical indicator of the extent to which utility service is
3 affordable. In order to achieve the goals outlined in the CEJA statute, the Company needs to do
4 more than simply establish a metric. As outlined below, there are actions that are within the
5 utility's control that ComEd should take to enhance affordability goals and reduce
6 disconnections.

7 Q. DO YOU HAVE RECOMMENDATIONS AS TO WHICH ACTIONS THAT ARE
8 WITHIN THE CONTROL OF THE COMPANY THAT COMED SHOULD TAKE
9 IMMEDIATELY TO ACHIEVE THE GOALS OF YOUR PROPOSED AFFORDABILITY
10 METRIC?

11 A. Yes, I do.

12 Q. WHAT ARE THOSE RECOMMENDATIONS?

13 A. There are several actions that the Company can take beyond customer outreach that *are*
14 *within the specific control of ComEd* that will lead to fewer disconnections and improved
15 affordability for the statutorily identified customer groups. Those actions include:

- 16 ● Revise its customer payment risk-ranking methodology that, in effect, punishes people
17 for being poor and keeps them trapped in a high-risk ranking, to ensure that "high-risk"
18 customers are not disconnected earlier than customers deemed low-risk;
19
- 20 ● Lengthen, rather than shorten, the amount of time provided to financially struggling
21 customers (who may be ranked as higher risk for payment) before disconnection occurs
22 so that they have an opportunity to apply for LIHEAP or PIPP assistance, gather the
23 necessary documentation to prove eligibility and await confirmation from their local
24 community action agency that they qualify for LIHEAP or PIPP, similar to the additional
25 time that is provided to customers deemed as having "acceptable" risk levels;

- 1 ● Regularly revisit the arrearage trigger amounts that start the disconnection cycle and
2 consider increasing the disconnection trigger amounts to minimize the frequency of
3 disconnections – particularly in the zip codes that I’ve highlighted in my metric;
4
- 5 ● Focus its attention on zip-code level credit and collections data that it files with the
6 Commission publicly each month to target outreach and connect with trusted community
7 partners in areas with high arrearages and disconnection rates to assist customers in
8 connecting with energy assistance;
9
- 10 ● Support the creation of discount rates in ComEd’s service territory for both its gas and
11 electric customers, either before or as part of its multi-year PBR rate filing. The tiered
12 discount tariff would establish discounted rates by designated income tiers to customers
13 who struggle each month to afford essential utility service.⁴⁶ Section 9-241 of the Act
14 requires the Commission to conduct a comprehensive study on or before January 1, 2023
15 to determine whether discount rates for electric and natural gas residential customers are
16 appropriate and the potential design and implementation of any such.⁴⁷
17
- 18 ● Combine the discounted rate with an arrearage management program (“AMP”) that, like
19 Illinois’ Percentage of Income Payment Plan (“PIPP”) program, rewards on-time

⁴⁶ NCLC would be pleased to work with ComEd in developing a tiered discount rate proposal that specifically addresses affordability for financially struggling customers within its service territory.

⁴⁷ Section 9-241 of the Act provides:

On or before January 1, 2023, the Commission shall conduct a comprehensive study to assess whether low-income discount rates for electric and natural gas residential customers are appropriate and the potential design and implementation of any such rates. The Commission shall include its findings, together with the appropriate recommendations, in a report to be provided to the General Assembly. Upon completion of the study, the Commission shall have the authority to permit or require electric and natural gas utilities to file a tariff establishing low-income discount rates.

Such study shall assess, at a minimum, the following:

- (1) customer eligibility requirements, including income-based eligibility and eligibility based on participation in or eligibility for certain public assistance programs;
- (2) appropriate rate structures, including consideration of tiered discounts for different income levels;
- (3) appropriate recovery mechanisms, including the consideration of volumetric charges and customer charges;
- (4) appropriate verification mechanisms;
- (5) measures to ensure customer confidentiality and data safeguards;
- (6) outreach and consumer education procedures; and \
- (7) the impact that a low-income discount rate would have on the affordability of delivery service to low-income customers and customers overall.

The Commission shall adopt rules requiring utility companies to produce information, in the form of a mailing, and other approved methods of distribution, to its consumers, to inform the consumers of available rebates, discounts, credits, and other cost-saving mechanisms that can help them lower their monthly utility bills, and send out such information semi-annually, unless otherwise provided by this Article.

1 payment of the reduced (discounted) bills with a debt forgiveness component of
2 outstanding arrearages over a 12-month period; and
3

- 4 ● Continue and increase the Company's admirable commitment and prioritization of energy
5 efficiency program dollars in low-income energy efficiency programs, and robust
6 weatherization programs in particular.
7

8 These actions, which are within the control of the Company, will directly improve the
9 likelihood that (1) customers who find ComEd's utility service unaffordable and who are most
10 frequently disconnected will see improved affordability and experience fewer disconnections,
11 and (2) that the COFI-proposed Affordability metric will be achieved.

12 Q. HAS COMED CALCULATED THE ALLEGED COST AND BENEFITS OF ITS
13 PROPOSED AFFORDABILITY METRIC?

14 A. No, it has not. In response to AG Data Request 1.08(i), the Company stated:

15 ComEd has not estimated its annual costs of achieving its
16 performance goals for this metric (in terms of how current budgets
17 might be affected (including changes in allocations) or incremental
18 costs due to the metric). ComEd does not expect any significant
19 systems or people changes to support this metric. As customer
20 education plans are further developed, costs associated with
21 customer outreach may increase.
22

23 In terms of alleged benefits, ComEd witness Owens notes in testimony:
24

25 As noted above, if ComEd is successful in reducing arrearages and
26 charge offs, and increasing customer assistance, costs for all
27 customers will decrease. This is because costs associated with
28 unpaid electricity bills are written-off and socialized across all
29 customers via ComEd's Rider Uncollectible Factors (Rider UF).
30 Thus, changes in the total value of costs recovered through Rider
31 UF may be indicative of the benefits associated with this
32 performance metric. However, the total value of costs recovered
33 through Rider UF may be subject to other factors, such as general

1 economic factors, unrelated to ComEd's performance with respect
2 to this metric.⁴⁸
3

4 My reading of this statement is that ComEd's alleged benefits associated with its Affordability
5 metric are unquantified, and not geared toward benefiting, in any specific way, the lower
6 income/environmental justice communities identified in the statute that references the
7 Affordability metric at issue. Also, ComEd acknowledges that the level of arrearages itself is
8 subject to variables outside of the Company's control, such as "general economic factors" which
9 is another argument in support of Commission rejection of the Company's Affordability metric.

10 Q. HAVE YOU CALCULATED THE COSTS AND BENEFITS OF YOUR PROPOSED
11 AFFORDABILITY METRICS?

12 A. No, I have not. First, I should note it is difficult for advocates outside of the Company to
13 compare the costs and benefits of altering credit and collections policies that are needed to
14 achieve the Affordability metric I recommend. I would also note that in my experience, utilities
15 typically push back on advocates' recommendations to alter credit and collection practices with
16 two responses: (1) that any changes that introduce more flexibility in customer payment
17 practices will require new coding in their IT systems and retraining for customer service
18 representatives, typically without a specific quantification of the cost involved; and (2) that
19 adjusting disconnection policies to increase arrearage trigger amounts will increase
20 uncollectibles (bad debt), thereby increasing costs to all customers. In that regard, utilities are not
21 acknowledging several important societal costs that are incurred when customers are

⁴⁸ ComEd Ex. 3.0 (CORR) at 9.

1 disconnected from essential utility services and the customer and societal benefits that exist
2 when customers remain connected to essential utility services.

3 First, when customers are disconnected from essential utility services, a home becomes
4 uninhabitable. A disconnected customer loses access to heat (even gas-heated homes require an
5 electric starter), cooling, cooking, lighting, internet, telephone service and use of any appliances.

6 Utility disconnections also threaten housing stability for many, especially extremely low-
7 income tenants. Tenants whose rent is subsidized by the Housing Choice Voucher (“HCV”)
8 Program (a.k.a. “Section 8”) and other housing subsidies are often responsible for ensuring
9 continuous utility service in their residences, and can face termination of their housing assistance
10 when they are disconnected.⁴⁹ Also, in many private market leases, tenants are responsible for
11 utilities and failure to maintain utility service can be considered a breach of the lease and
12 grounds for terminating the tenancy and filing an eviction action in court.

13 Some of the utility system, societal, and participant benefits of ensuring that customers
14 have affordable utility service such that they can retain uninterrupted access to essential utility
15 service include:

16 **Utility system payment benefits** – (1) increased contributions to fixed costs; (2)
17 reduced costs for (a) arrearages, (b) uncollectibles; (c) collection costs; (d)

⁴⁹ See e.g. Chicago Housing Authority, Housing Choice Voucher Program, Admin. Plan (eff. Feb. 1, 2020), § 12-1.D, ¶ 16. See 24 C.F.R. §§ 982.404(b)(1)(i), (b)(3). 17. Likewise, tenants living in Rental Assistance Demonstration (RAD) Properties – another type of housing subsidy – “must obtain and maintain utility connections throughout tenancy. . . . Failure to maintain the utility connection is a serious violation of the lease, subject to lease termination.” CHA, HCVP, Admin. Plan, § 18-IV.Q(2)(a). Some public housing authorities are able to monitor the status of tenants’ utility connections. For instance, under its RAD policies, the CHA requires that “[w]hen a resident applies for utility service, the resident must sign a third-party notification agreement so that the CHA is notified . . . if the utility service will be disconnected.” Id. at § (2)(c).

1 termination and reconnection costs; (e) negotiation and administration of payment
2 plans; and (f) regulatory costs.

3 **Societal benefits** – (1) reduced medical costs; (2) reduced fire and public safety
4 costs; (3) incremental economic development; and (4) reduced need for homeless
5 shelters and related public services.

6 **Participant benefits** – (1) reduced home energy burden; (2) reduced
7 disconnections; (3) enhanced cash flow; (4) improved health and safety; (5)
8 homelessness prevention; (6) reduced need to forego other necessities; (7) reduced
9 broadband interruption; and (8) reduced educational harms.

10 Q. WHAT DOES THE ACT STATE ABOUT QUANTIFYING COSTS AND BENEFITS
11 OF PROPOSED PBR METRICS?

12 A. Section 16-108.18(e)(2)(F), provides that the consideration of the following factors “shall
13 result in an incentive level that ensures benefits exceed costs for customers”:

- 14 ● the extent to which the amount is likely to encourage the utility to achieve the
- 15 performance target in the least cost manner;
- 16 ● the value of benefits to customers, the grid, public health and safety, and the environment
- 17 from achievement of the performance target, including in particular benefits to equity
- 18 investment eligible community;
- 19 ● the affordability of customer's electric bills, including low-income customers,
- 20 ● the utility's revenue requirement,
- 21 ● the promotion of renewable and distributed energy, and
- 22 ● other such factors that the Commission deems appropriate.

23
24 In addition, Section 16-108.18(e)(2)(F) provides that “(f)or the purpose of determining
25 reasonable performance metrics and related incentives, the Commission shall develop a
26 methodology to calculate net benefits that includes customer and societal costs and benefits and

1 quantifies the effect on delivery rates.” Both of these statutory passages emphasize the
2 importance of recognizing the benefits that flow to both low-income customers and society in
3 general.

4 The above-referenced costs and benefits of reducing the number of customers
5 disconnected from essential utility service should be incorporated in any Commission analysis of
6 the Affordability metric. Given that we know that ComEd disconnects customers from essential
7 utility service *before 90 days*, I believe that the benefits of ComEd’s proposed metric are few and
8 have not been specifically identified by the Company.

9 Q. WILL THE COMPANY’S PERFORMANCE OF YOUR PROPOSED METRIC BE
10 TRANSPARENT AND PUBLICLY AVAILABLE?

11 A. Yes, it will. The Staff Report following the PBR workshops provided that PIMs should
12 increase transparency and the availability and reporting of utility and energy operating and cost
13 information. Further, it noted that metrics and outcomes should be available to the public in an
14 understandable format, clearly defined, measurable, and unambiguous. Staff Report at 31. How
15 well or poorly the Company is able to achieve my proposed metric, reducing disconnection
16 numbers, will be reported monthly on the Commission’s website as the Company files its
17 monthly credit and collection data by zip code, as required by statute.⁵⁰

⁵⁰220 ILCS 5/8-201.10

Assessing the Point-Value of an Affordability Metric

Q. WHAT GUIDANCE DOES THE ACT PROVIDE FOR PURPOSES OF ASSIGNING A BASIS POINT VALUE TO EACH METRIC?

A. In determining the appropriate level of a performance incentive, the Commission shall consider the following factors, which consideration shall result in an incentive level that ensures benefits exceed costs for customers:

- the extent to which the amount is likely to encourage the utility to achieve the performance target in the least cost manner;
- the value of benefits to customers, the grid, public health and safety, and the environment from achievement of the performance target, including in particular benefits to equity investment eligible community;
- the affordability of customers' electric bills, including low-income customers, the utility's revenue requirement, the promotion of renewable and distributed energy; and
- other such factors that the Commission deems appropriate.⁵¹

As noted earlier in my testimony, the 40 basis points total may be adjusted upward or downward by the Commission by, at most, 20 basis points, for any given multi-year rate plan.

Increases or enhancements to an existing performance goal or target must be considered in light of other metrics, cost-effectiveness, and other factors the Commission deems appropriate.

Q. HOW MANY RETURN ON EQUITY ("ROE") BASIS POINTS DOES COMED PROPOSE BE ASSIGNED TO ITS PROPOSED AFFORDABILITY PIM?

A. ComEd proposes that the Commission approve a value of five basis points out of a total of 60 proposed PBR metric points among a total of six metrics. As shown in the table below,

⁵¹ 220 ILCS 5/16-108.18(e)(2)(F).

- 1 ComEd proposes a symmetrical PIM that would either reduce or increase its ROE based on
2 achievement of the Affordability metric.

Table 4 ⁵² :				
	Incremental Annual Target	Incentive and Penalty		
		-5BPS	0BPS	5BPS
2024	3.64%	>3.71%	Between 3.71% and 3.64%	<=3.64%
2025	3.56%	>3.64%	Between 3.64% and 3.56%	<=3.56%
2026	3.49%	>3.56%	Between 3.56% and 3.49%	<=3.49%
2027	3.42%	>3.49%	Between 3.49% and 3.42%	<=3.42%
2028	3.35%	>3.42%	Between 3.42% and 3.35%	<=3.35%

- 3 Q. IS COMED’S ASSIGNMENT OF FIVE RETURN ON EQUITY (“ROE”) BASIS
4 POINTS SUFFICIENT TO INCENTIVIZE BEHAVIOR THAT WILL IMPROVE
5 AFFORDABILITY FOR LOWER-INCOME, ENVIRONMENTAL JUSTICE AND EQUITY
6 INVESTMENT-ELIGIBLE COMMUNITIES?

- 7 A. The answer to that question requires analyzing whether the dollar value assigned to the
8 Affordability metric is significant enough to alter or incite change within the Company’s rate and
9 credit and collection practices to produce measurable reductions in disconnections among the
10 residential populations living in zip codes with high disconnection rates. The Company’s total
11 revenues requirement is \$13,035,493,000 (from the 2021 formula rate revenues requirement⁵³),
12 according to ComEd’s response to AG Data Request 1.08 Supplemental. ComEd calculates that

⁵² ComEd Ex. 3.0 CORR at 8.

⁵³ See ICC Docket No. 21-0367, Order of December 1, 2021 at 36.

1 a five-point ROE incentive payment would adjust the Company's revenue by a total of
2 \$4,092,000 upwards or downwards. That amount represents about .03 percent (less than 1%) of
3 the Company's total revenue requirement. In my view, that amount is unlikely to incent
4 extraordinary effort on the Company's part to alter the Company's credit and collection
5 procedures to achieve the goals of an Affordability metric. It is particularly insufficient given the
6 General Assembly's emphasis on affordability of rates, and in particular for low income
7 customers in CEJA's PBR provisions, and the need to "address the particular burdens faced by
8 consumers in environmental justice and equity investment eligible communities, including
9 shareholder, consumer, and publicly funded bill payment assistance and credit and collection
10 policies, and ensure equitable disconnections, late fees, or arrearages as a result of utility credit
11 and collection practices, which may include consideration of impact by zip code," as required
12 under Section 16-108.18(c) (5) and (8).

13 Q. WHY DO YOU BELIEVE THE AFFORDABILITY METRIC SHOULD BE
14 AWARDED MORE POINTS THAN WHAT COMED HAS PROPOSED?

15 A. In order to answer that question, it is important to make a few observations about how all
16 of the incentive/penalty points should be analyzed by the Commission. First, I would note that
17 three of the metrics, in my view, should not be assigned any ROE point values because the
18 Company already has incentives to invest in the infrastructure needed to achieve the stated goals.
19 Specifically, I am referring to metrics 1 through 3:

20 1. Overall Reliability based on SAIDI improvement in the System Average Interruption
21 Duration Index ("SAIDI"), excluding major event days and planned interruptions. +/-15 bps

1 2. Customers Exceeding Minimum Service Levels of Reliability or Resiliency
2 (Improvement in the number of customers whose reliability and resiliency performance does not
3 meet certain minimum service level targets. +/-10 bps)
4 3. System Visibility Index (Increase in the percent of the system with visible, continuous
5 communications, telemetry, and control).
6

7 Each of these metrics, in order to be achieved, requires investment in electric
8 infrastructure to achieve the improved performance metrics described in the statute. Stated
9 another way, a utility under rate of return regulation already has an incentive to pour additional
10 financial resources into infrastructure investments that increase its rate base, since the return on
11 investment that a utility received is multiplied by its rate base as a part of establishing its revenue
12 requirement. That is true now under the current Section 16-108.5 formula ratemaking
13 environment and will be true under the four-year performance-based ratemaking structure that
14 will begin in 2024.

15 Q. ARE THERE OTHER REASONS YOU BELIEVE IT IS IMPORTANT TO PROVIDE
16 A MORE SIGNIFICANT POINT VALUE TO THE AFFORDABILITY METRIC?

17 A. Right now, ComEd enjoys the revenue protection of Rider UF (Uncollectible Factors) to
18 recover its bad debt. Under this tariffed rider, the Company is able to collect shortfalls in
19 incremental bad debt that are not already recovered in ComEd's electric base rates through
20 monthly adjustments to the customer charge and kWh charges.⁵⁴ Accordingly, the Company
21 currently lacks a clear financial incentive to ensure affordability of rates for all of its customers –
22 and in particular the low-income customers who struggle each month to afford essential utility
23 services. In this regard, a performance metric that provides the Company a financial incentive to

⁵⁴ Rider UF, ILL. C. C. No. 10, 6th Revised Sheet No. 267 (Canceling 5th Revised Sheet No. 267)

1 ensure affordability for all of its customers, including those who frequently and most often face
2 disconnection from essential utility services, makes sense under a performance-based ratemaking
3 scheme that is trying to incent actions that may not traditionally improve the utility's net income.

4 Q. WHAT ROE POINT VALUE DO YOU BELIEVE IS APPROPRIATE TO INCENT
5 THE COMPANY TO ADDRESS THE AFFORDABILITY GAPS THAT CLEARLY EXIST
6 FOR LOW-INCOME CUSTOMERS IN THE AREAS IN ITS SERVICE TERRITORY WITH
7 HIGH DISCONNECTION RATES?

8 A. At a minimum, I believe a doubling of ComEd's proposed five-point proposed
9 Affordability metric is necessary to incentivize exceptional performance relative to an
10 Affordability metric. With my proposed exclusion of metrics 1, 2 and 3 from the assignment of
11 any ROE points, a total of five metrics remain to be divided among the 60 ROE basis points
12 ComEd is proposing. The 10 points I am proposing represents one-sixth (1/6th) of the total
13 points assigned to the five metrics that would receive incentive points. I reserve the right to
14 adjust this recommendation in my Rebuttal testimony after reviewing other proposals for PBR
15 metric values proposed by other stakeholders and Staff.

16 **Summary of Conclusions**

17

18 Q. PLEASE SUMMARIZE YOUR CONCLUSIONS.

19 A. The General Assembly has made clear in several provisions in the Clean Energy Jobs Act
20 ("CEJA") that affordability for low-income customers and a reduction in disconnections through
21 revisions in credit and collections policies is a critical component to establishing equitable utility

1 service that truly benefits all customers. ComEd's proposed affordability metric that tracks the
2 reduction in the percentage of customers with arrearages over 90 days over a four-year period
3 fails to achieve these clear goals outlined in the Act. In assessing the current affordability of
4 ComEd's rates and its current credit and collections practices, I conclude that certain policies,
5 including its customer credit-risk-ranking policy and the Company's acceleration of
6 disconnections for customers deemed high-risk as compared to low-risk risk customers, lead to
7 clear inequities in the rates of disconnections. I also conclude that the ComEd disconnection data
8 from 2013-2019 show a striking overlap between race and service disconnections. I propose a
9 new Affordability metric for Commission adoption that better encapsulates the goals listed in
10 Section 16-108.18(c) and 16-108.18(e)(A)(iv) than ComEd's proposal, and specifically addresses
11 the statutory direction to reduce disconnections for low-income households and to ensure equity
12 in credit and collection practices. I recommend that the Commission direct the Company to
13 develop and adopt an Affordability performance metric based on a 10 percent annual reduction
14 over a four-year period in residential disconnections for non-payment in the 20 zip codes in its
15 service territory with the highest 2017 - 2019 disconnections ratios. Finally, I conclude that
16 ComEd's proposal to assign five points out of a total of 60 proposed points to the Affordability
17 metric is insufficient to incentivize affordability goals and recommend that the point value be
18 doubled to 10 points.

19 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

20 A. Yes, it does.